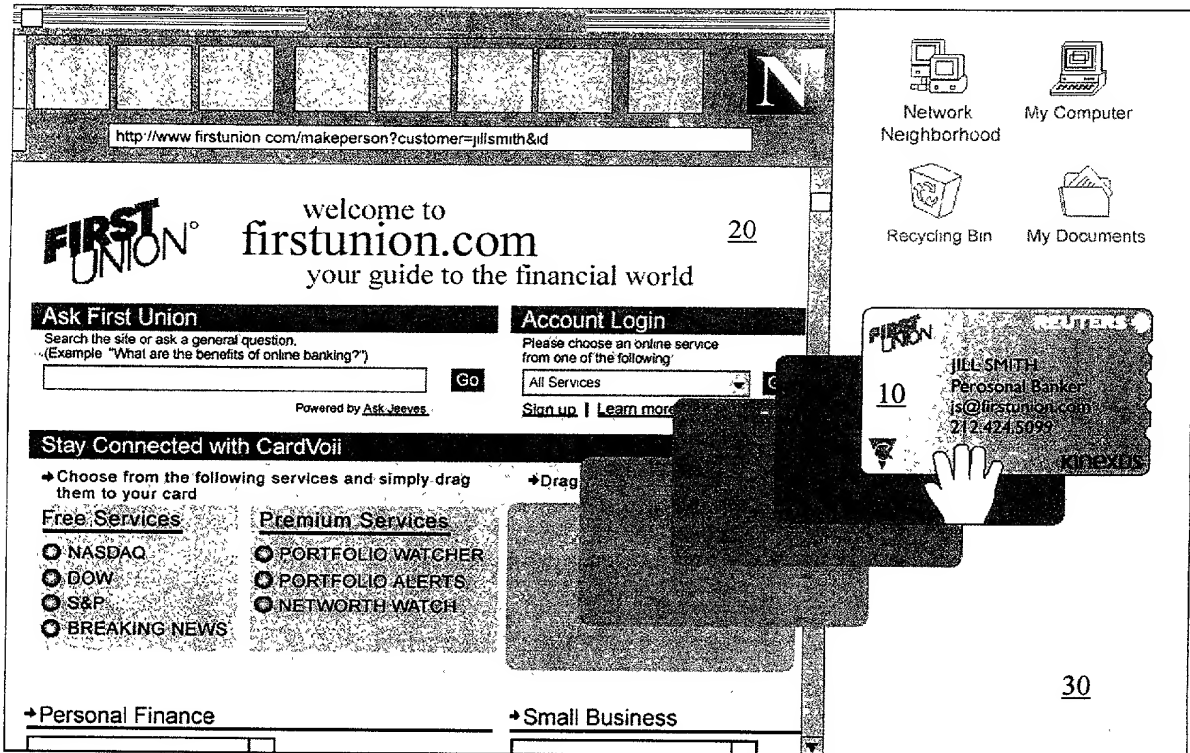
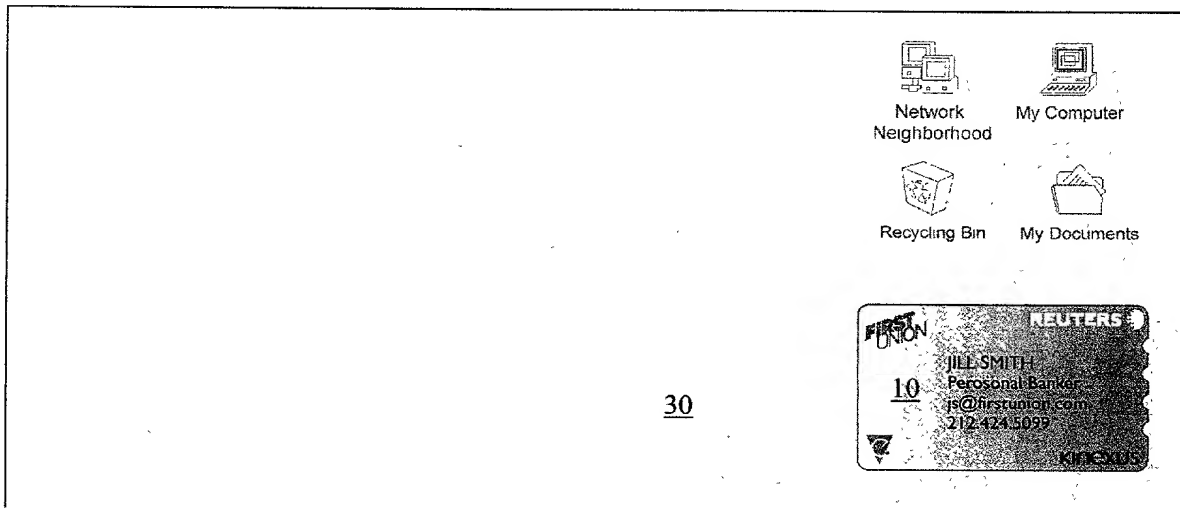


1/14

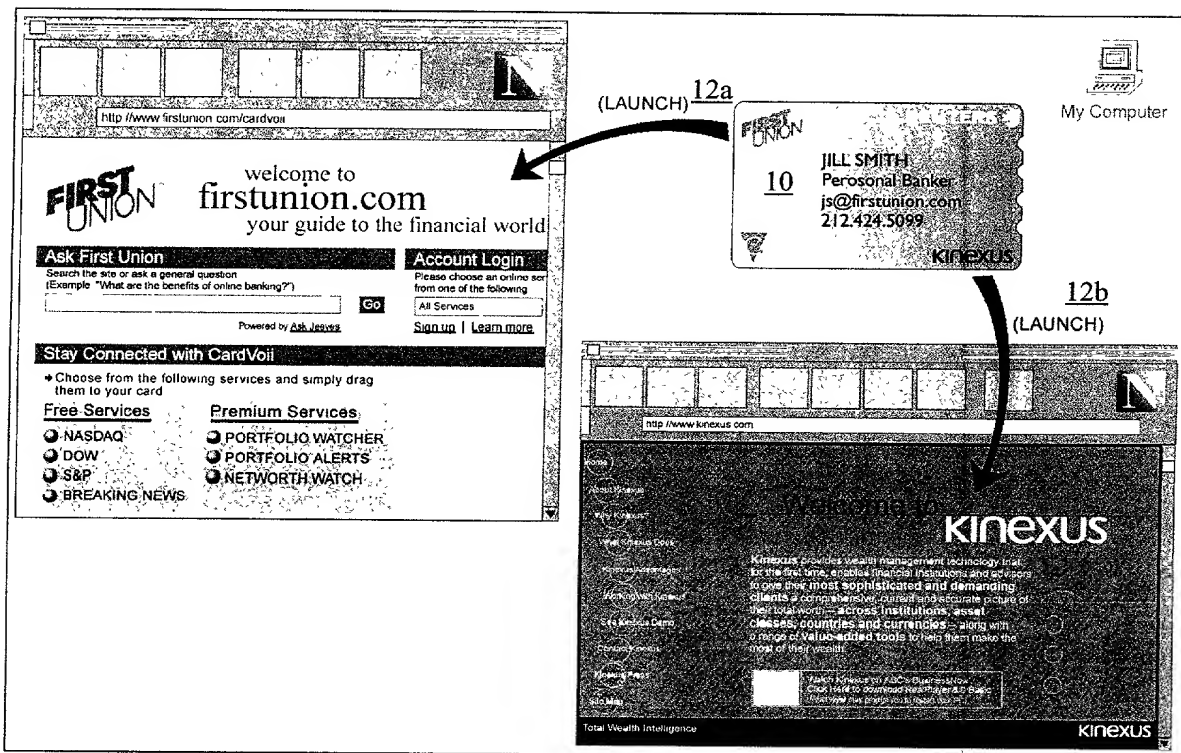


**FIG. 1**

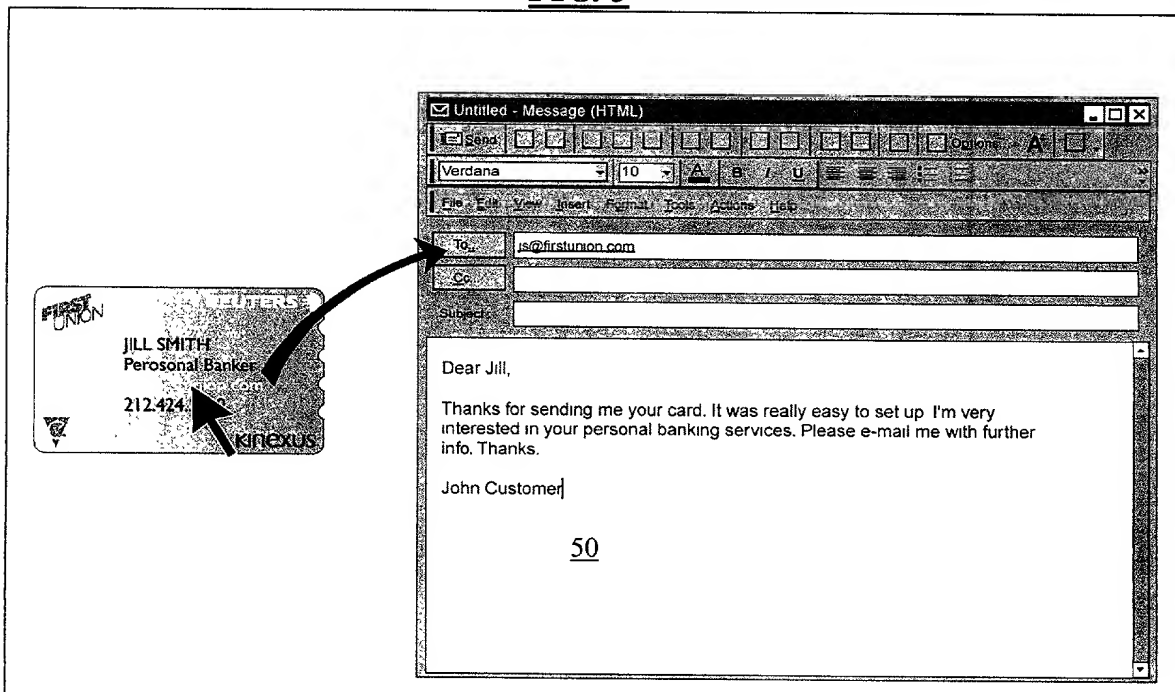


**FIG. 2**

2/14



**FIG. 3**



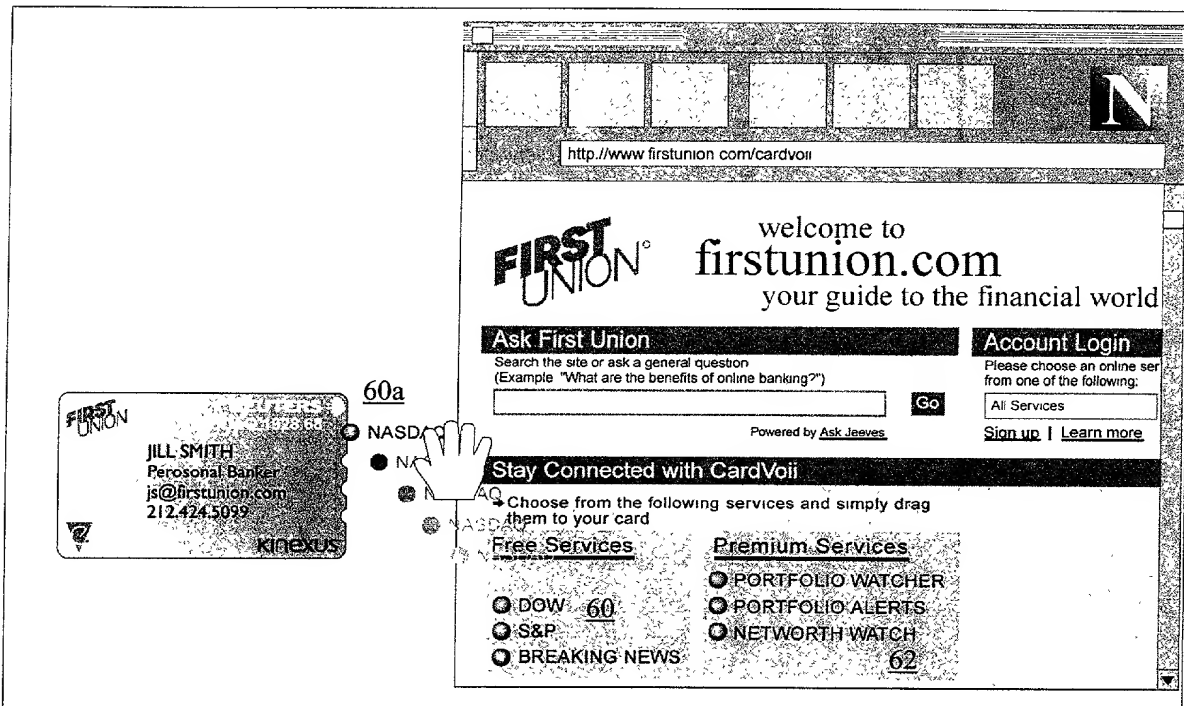
**FIG. 4**

# METHOD AND APPARATUS FOR A DISTRIBUTABLE ENVOII OBJECT

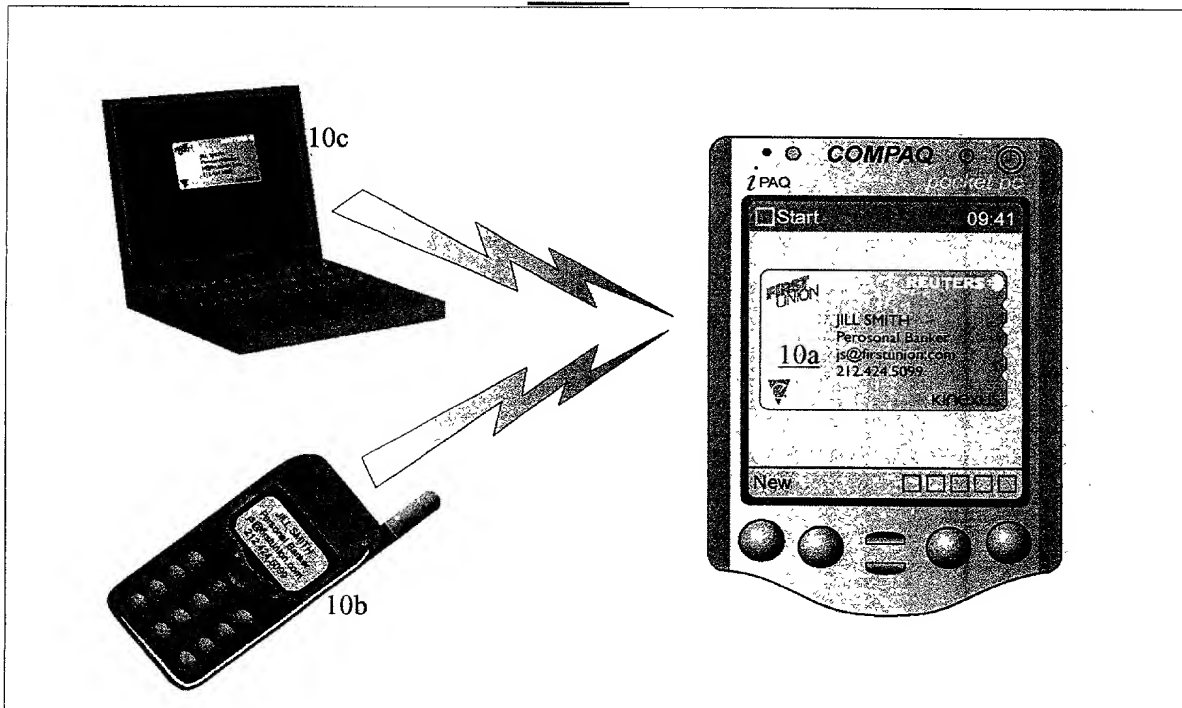
Michael Tolson Filed 08-May-01

LOJAG Attorney Docket No: 507.000110US; SJL Tel. No. 510-337-7871

3/14

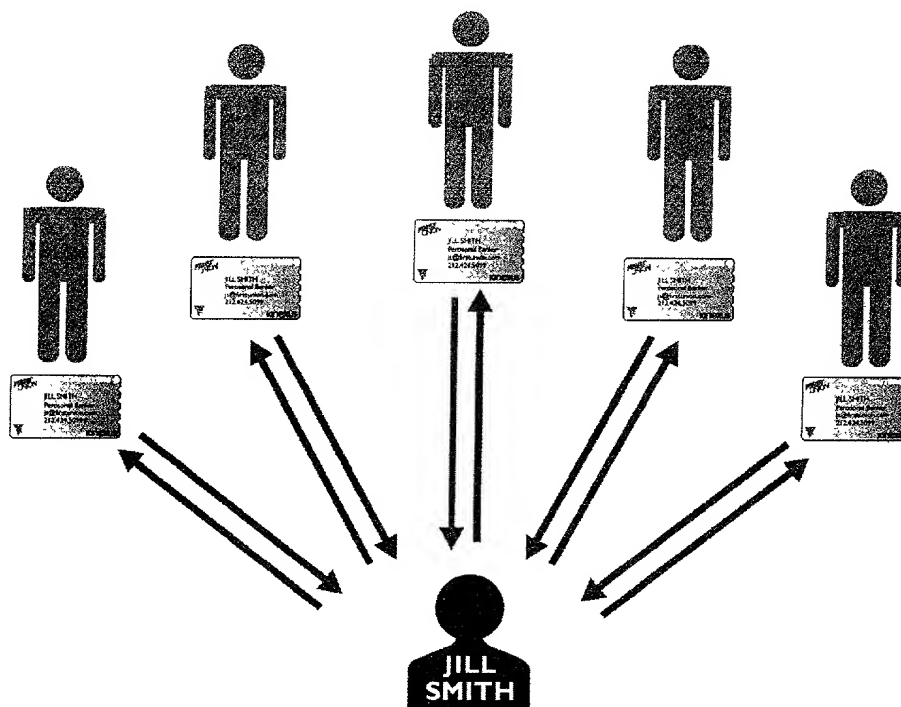


**FIG. 5**



**FIG. 6**

4/14



**FIG. 7**

5/14

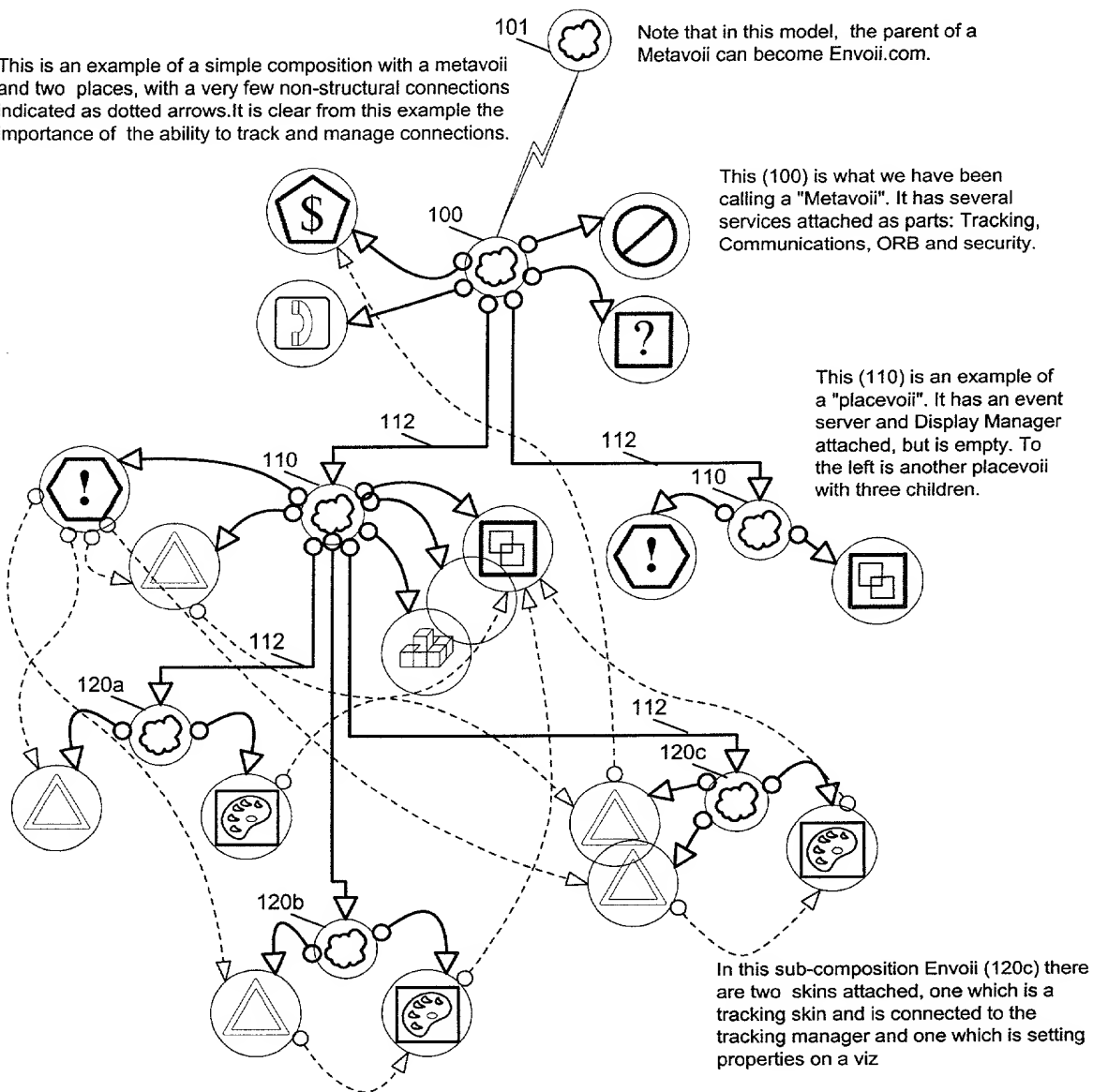
This is an example of a simple composition with a metavoi and two places, with a very few non-structural connections indicated as dotted arrows. It is clear from this example the importance of the ability to track and manage connections.

Note that in this model, the parent of a Metavoi can become Envioi.com.

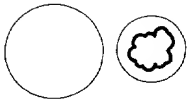
This (100) is what we have been calling a "Metavoi". It has several services attached as parts: Tracking, Communications, ORB and security.

This (110) is an example of a "placevoi". It has an event server and Display Manager attached, but is empty. To the left is another placevoi with three children.

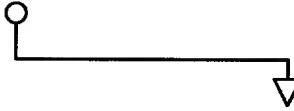
In this sub-composition Envioi (120c) there are two skins attached, one which is a tracking skin and is connected to the tracking manager and one which is setting properties on a viz

**FIG. 8**

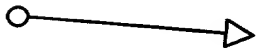
6/14



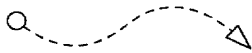
These are Envois (or "Enodes"). As an instance of a class, it provides generic graph interface. The connection points are representative of open set of "ports" which enable connections to other enodes.



This is a "Kid" connection, which is a specialization of a "Part" connection. It is the primary glue which is used by designers in building compositions. It effectively helps implement a tree-hierarchy as in the current system.



This is a "Part" connection. Part connections are structural, and enforce a part/part-c protocol.



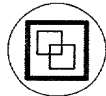
This is a representative dynamic connection. Some such connections may be transient, and others not.



This is a "skin", and it bears a part-of relationship to an envoy.



This is a "Viz" and it bears a part-of relationship to an envoy.



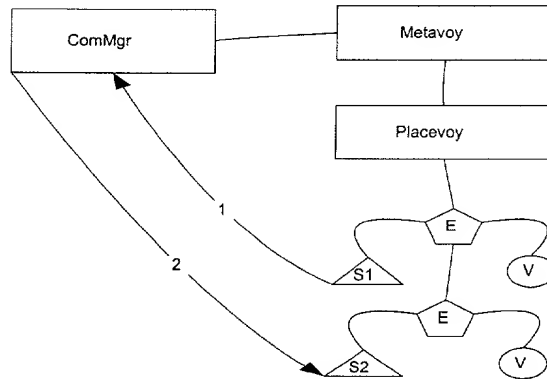
This is a "DisplayManager". It is a part of an envoy which provides a rendering service.



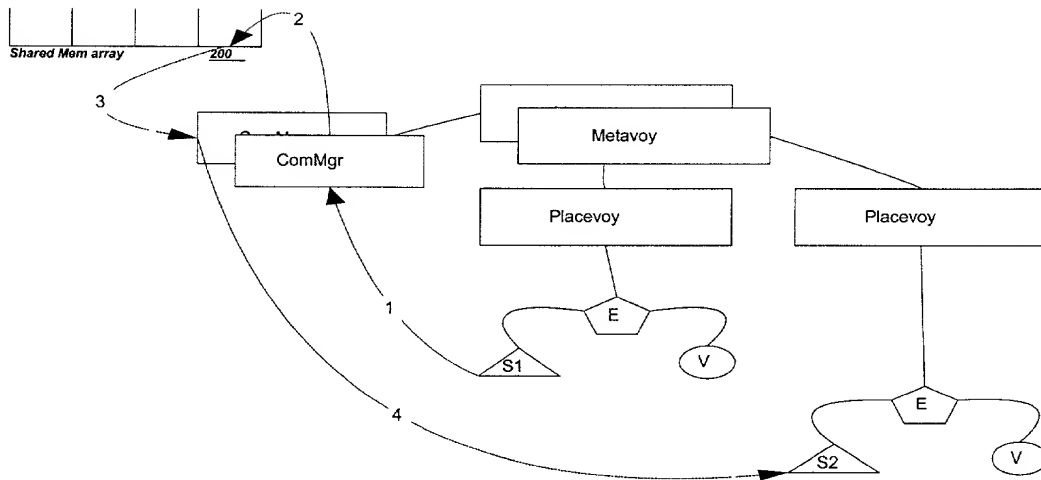
This is an "Event Service".

**FIG. 9**

7/14

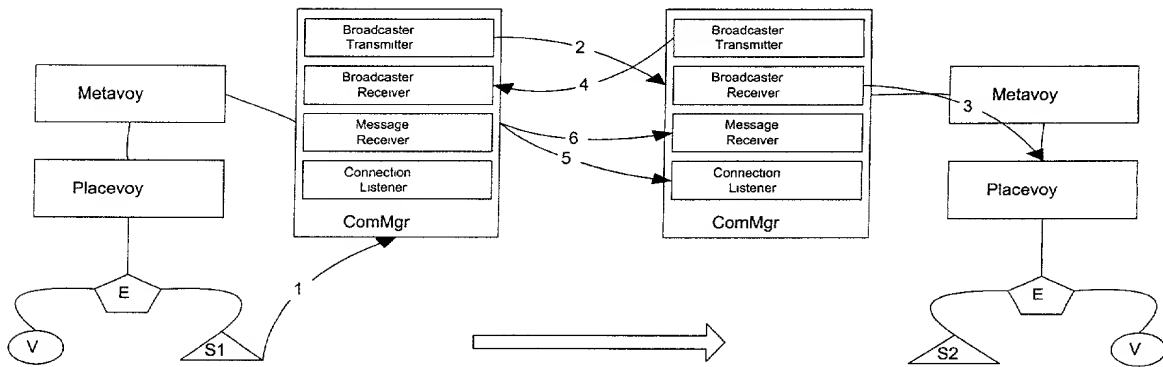


**FIG. 10**

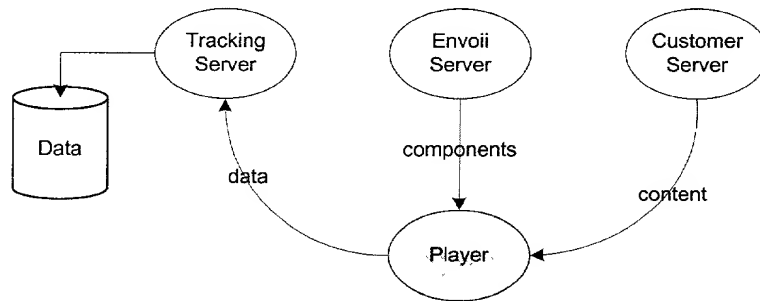


**FIG. 11**

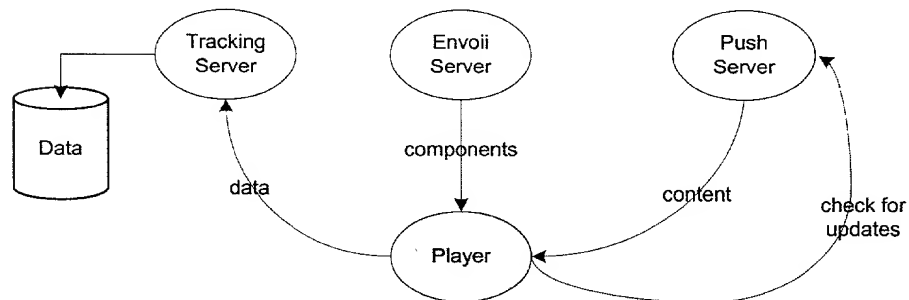
8/14



**FIG. 12**



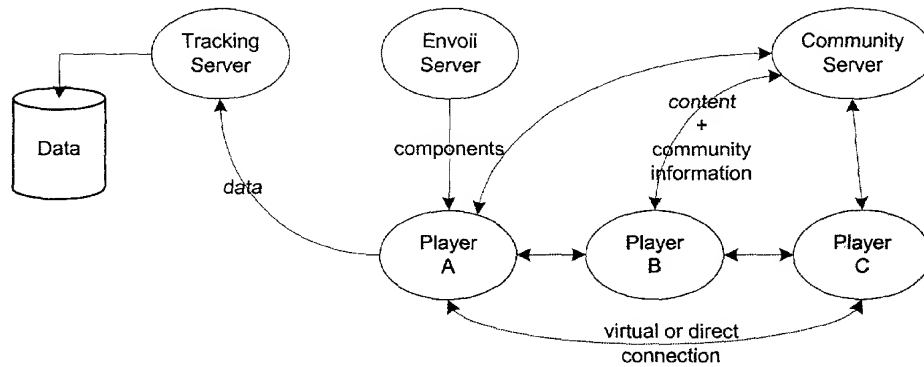
**FIG. 13**



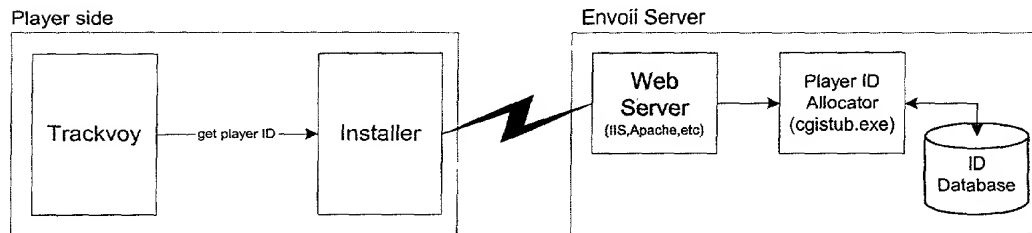
**FIG. 14**



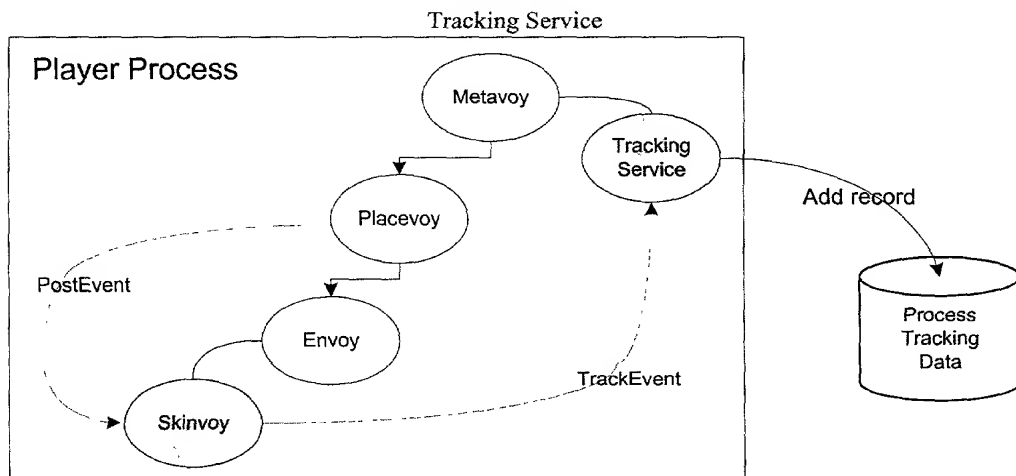
9/14



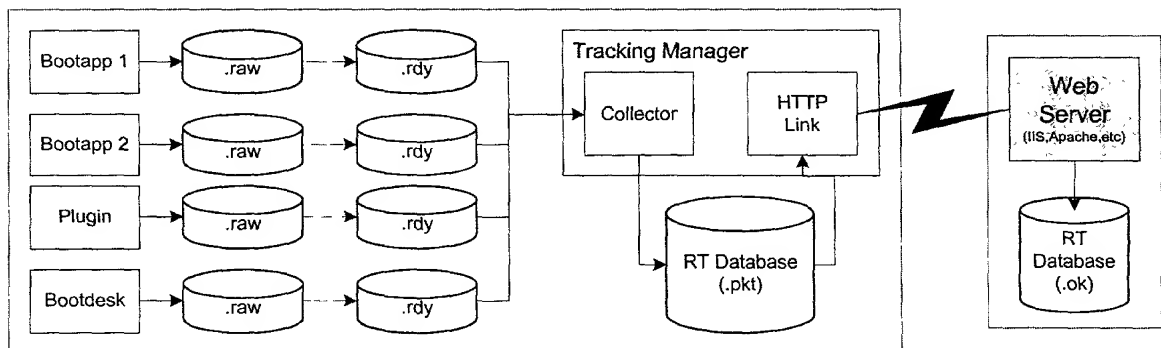
**FIG. 15**



**FIG. 16**



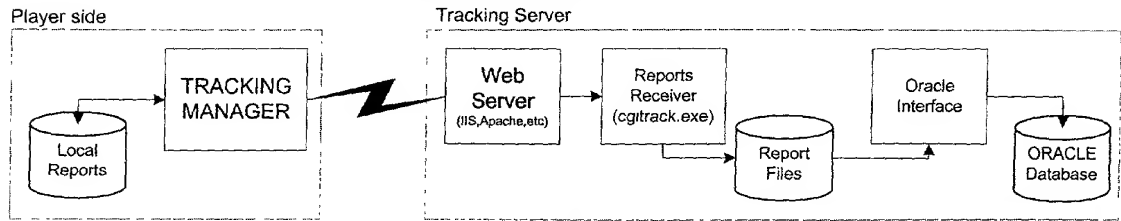
**FIG. 17**



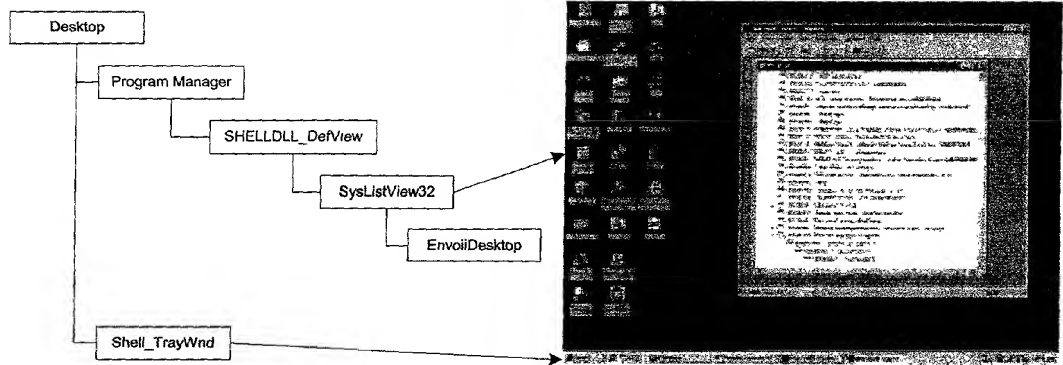
**FIG. 18**

10/14

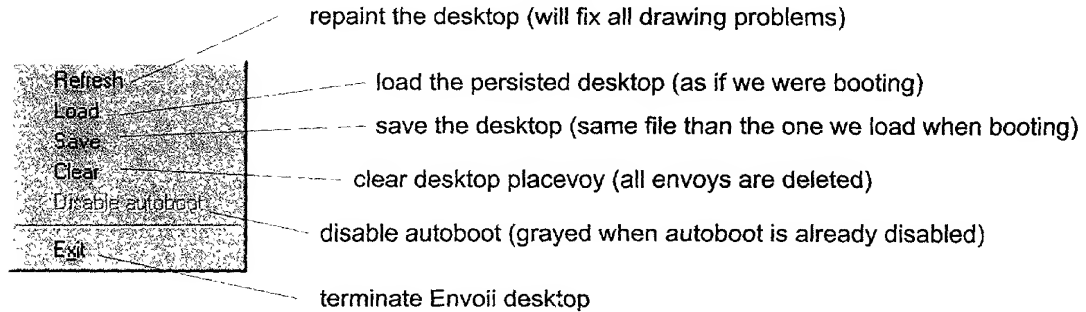
Data transfer to the tracking server



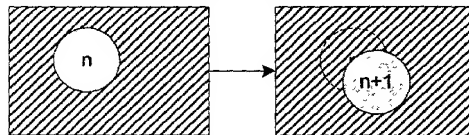
**FIG. 19**



**FIG. 20**

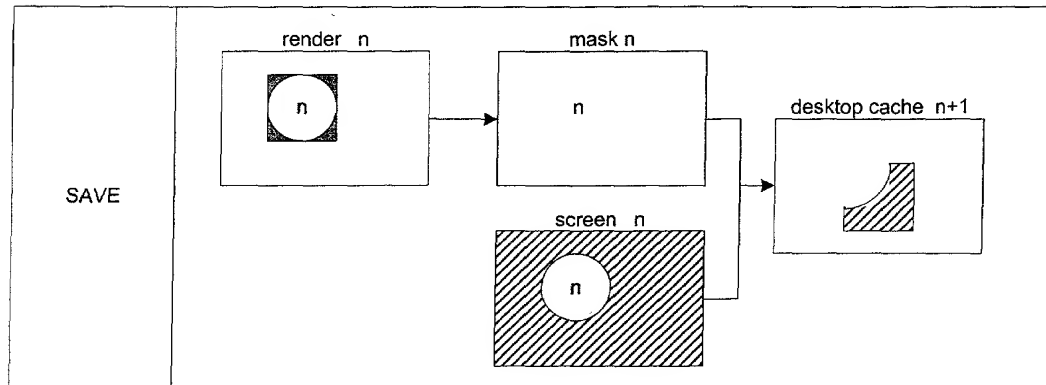


**FIG. 21**

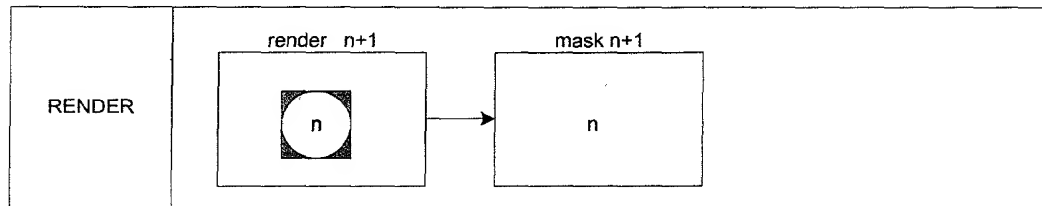


**FIG. 22**

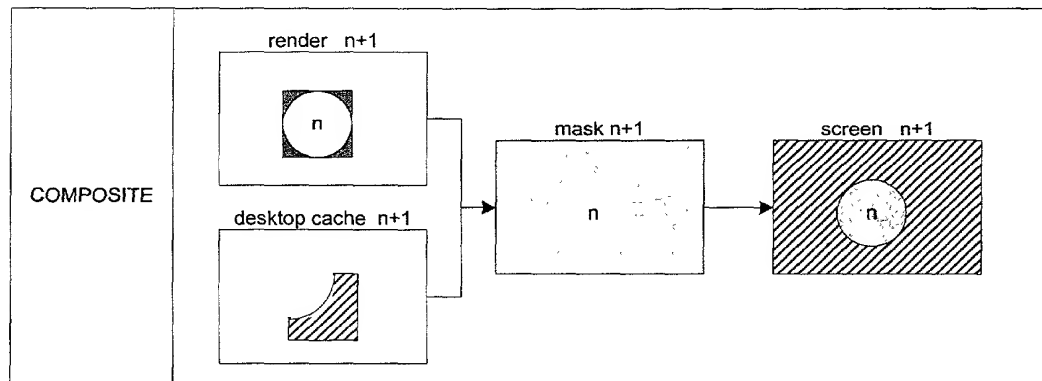
11/14



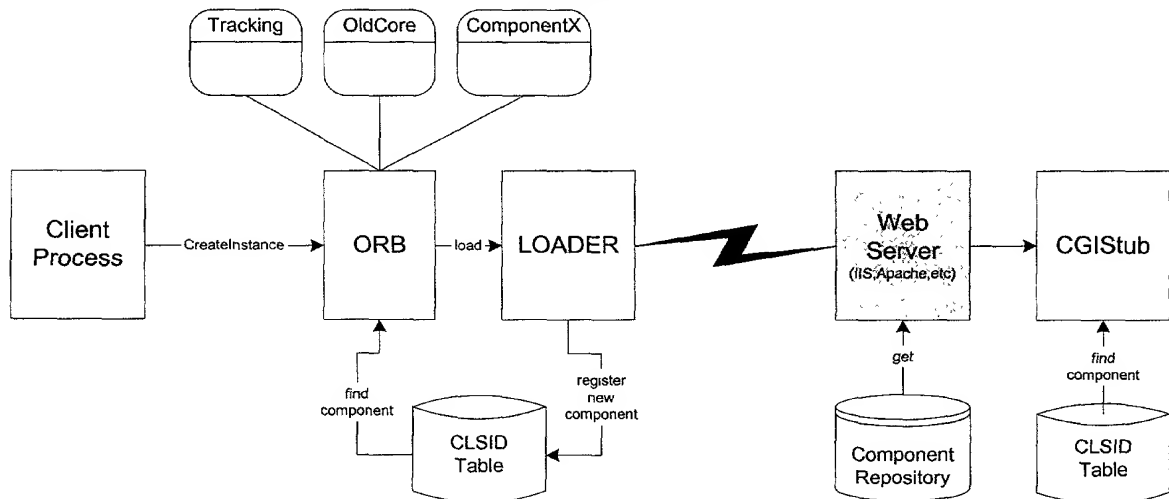
**FIG. 23**



**FIG. 24**



**FIG. 25**



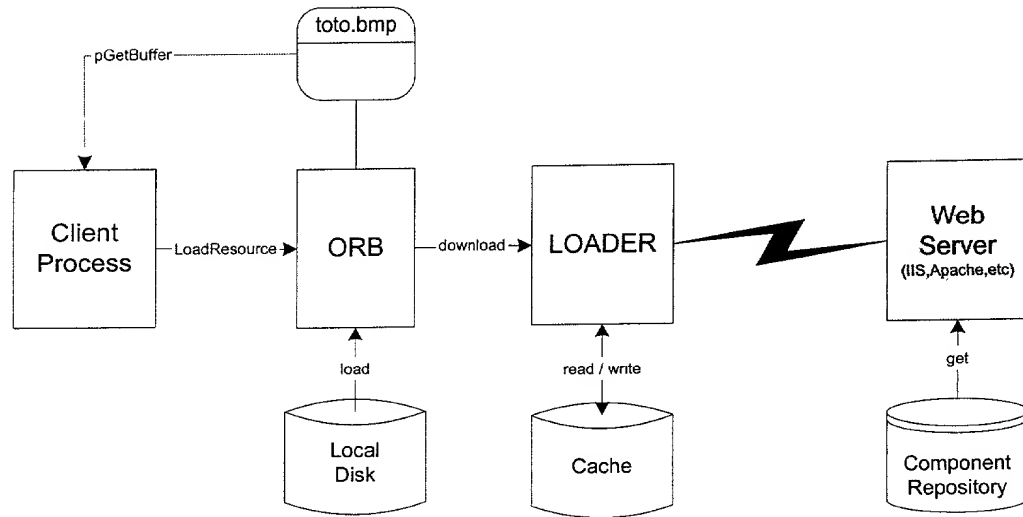
**FIG. 26**

# METHOD AND APPARATUS FOR A DISTRIBUTABLE ENVOII OBJECT

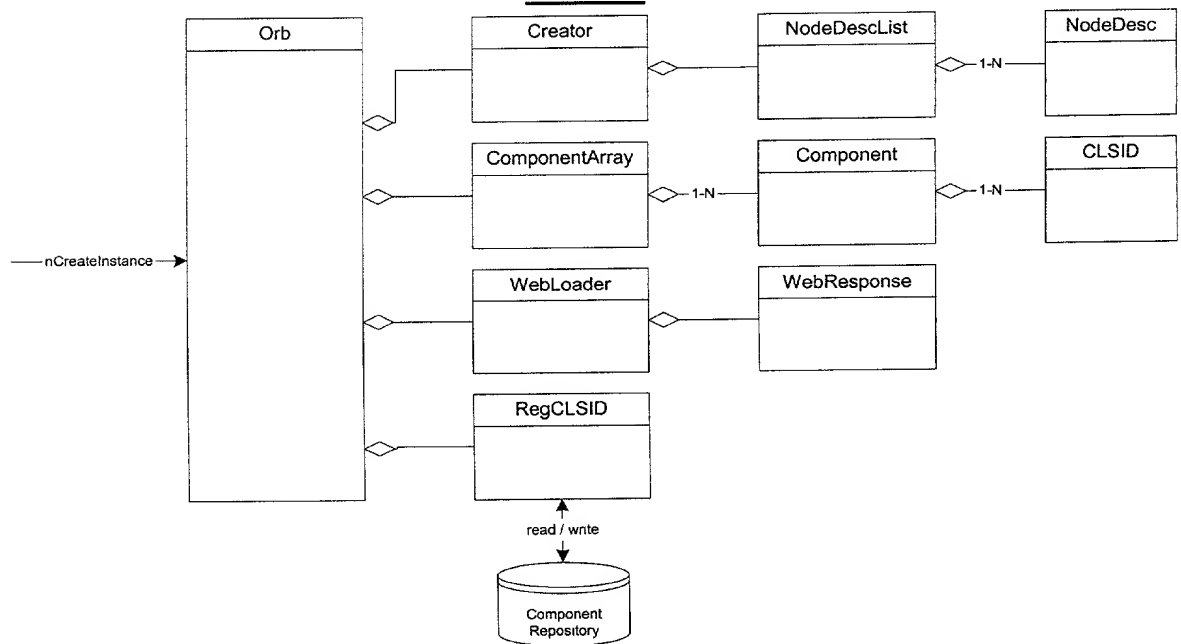
Michael Tolson Filed 08-May-01

LOJAG Attorney Docket No: 507.000110US; SJL Tel. No. 510-337-7871

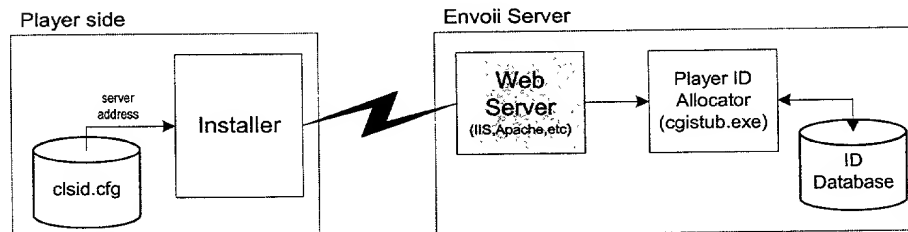
12/14



**FIG. 27**

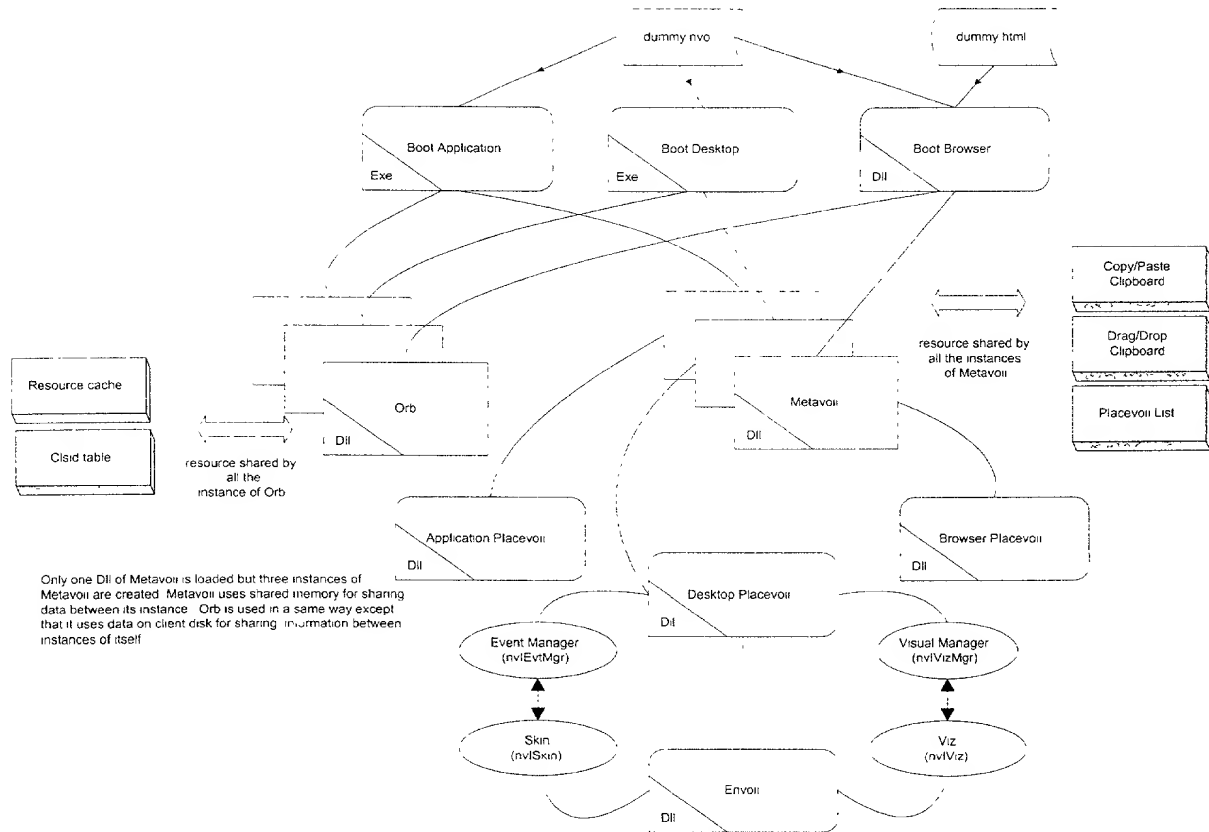


**FIG. 28**



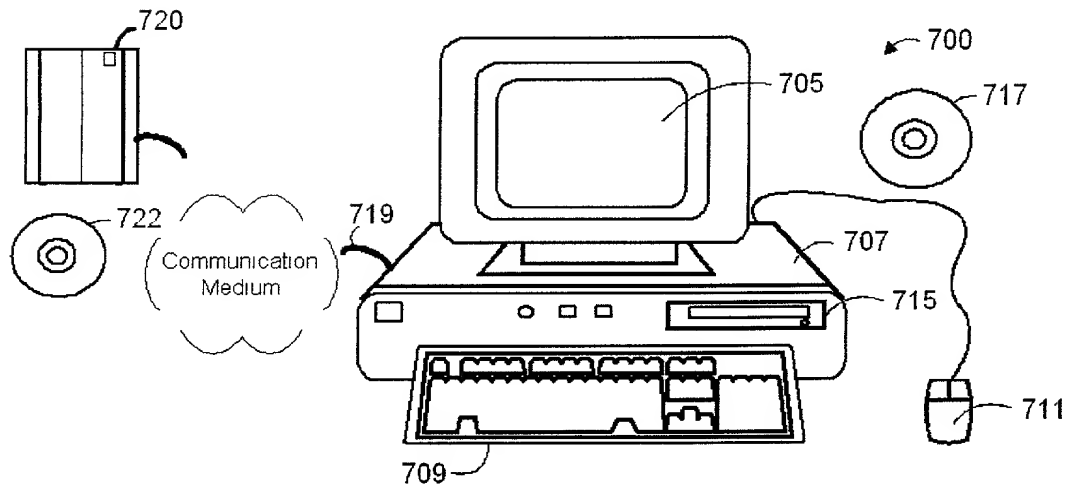
**FIG. 29**

13/14



**FIG. 3D**

14/14



**FIG. 31**